

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:	)		
	)		
Steven R. HETZLER et al.	)	Group Art Unit:	TBA
	)		
Serial No.: TBA	)		
	)	Examiner:	TBA
Filed: July 14, 2003	)		
	)		
For: RAID 3 + 3	)	Atty Dkt No.	ARC920030040US1
	)		

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. § 1.56 and in compliance with 37 C.F.R. § 1.97(b), Applicants submit herewith a Form PTO-1449 listing patents and publications for consideration in connection with the above-identified application. A copy of each patent and publication is provided herewith.

Applicants respectfully request that the Examiner consider and enter these documents into the file of the above-identified application. If any additional fee is deemed necessary, the Commissioner is authorized to charge Deposit Account No. 09-0441.

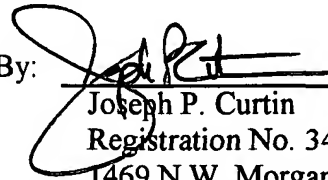
Applicants also wish to draw the Examiner's attention to the following related Patent Applications that are each co-pending, co-assigned and filed concurrently herewith: Patent Application Serial No. (Attorney Docket No. ARC9-2003-0014-US1), entitled "Anamorphic Codes", Patent Application Serial No. (Attorney Docket No. ARC9-2003-0015-US1), entitled "Autonomic Parity Exchange," and Patent Application Serial No. (Attorney Docket No. ARC9-2003-0016-US1), entitled "Multi-path Data Retrieval From Redundant Array". Additionally, Applicants wish to bring the Examiner's attention to related co-pending Patent Application Serial No. (Attorney Docket No. YOR9-2003-0069-US1).

A general authorization under 37 C.F.R. § 1.25(b), second sentence, is hereby given to credit or debit Deposit Account No. 09-0441 for the instant filing and for any other fees during the pendency of this application under 37 C.F.R. §§ 1.16, 1.17 and 1.18.

Respectfully submitted,

Dated: July 14, 2003

By:

A handwritten signature in black ink, appearing to read "Joseph P. Curtin", is written over a horizontal line.

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STATEMENT BY APPLICANT**

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**Complete if Known**

Applicant Number	TBA
Filing Date	July 14, 2003
First Named Inventor	Steven R. HETZLER
Art Unit	TBA
Examiner Name	TBA
Attorney Docket Number	ARC9-2003-0016-US1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	31	M. Blaum et al., "MDS Array Codes with Independent Parity Symbols," IEEE Trans. on Information Theory, Vol. IT-42, pp. 529-542, March 1996.	
	32	M. Blaum et al., "The EVENODD Code and its Generalization," High Performance Mass Storage and Parallel I/O: Technologies and Applications, edited by H. Jin et al., IEEE & Wiley Press, New York, Chapter 14, pp. 187-208, 2001.	
	33	M. Blaum et al., "EVENODD: An Efficient Scheme For Tolerating Double Disk Failures In A RAID Architecture," IEEE Trans. on Computers, Vol. 44, No. 2, pp. 192-202, Feb. 1995.	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)			<b>Complete if Known</b>		
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Sheet	3	of	4	Attorney Docket Number	ARC9-2003-0016-US1

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Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
	21	G.A. ALVAREZ et al., Tolerating Multiple Failures in RAID Architectures with Optimal Storage and Uniform Declustering, Computer Architecture News (USA), V. 25, #2, pp. 62-72, May 1972.		
	22	V. BOHOSSIAN et al., Computing in the RAIN: A Reliable Array of Independent Nodes, pp. 1-20, September 24, 1999.		
	23	P.M. CHEN et al., RAID: High-Performance, Reliable Secondary Storage, ACM Computing Surveys, Vol. 26, No. 2, pp. 146-185, June 1994.		
	24	M. HOLLAND et al., Parity Declustering for Continuous Operation in Redundant Disk Arrays, ACM 0-89791-535-6/92/0010/0023, pp. 23-35, October 1992.		
5	25	N.K. OUCHI, Two-Level DASD Failure Recovery Method, IBM Technical Disclosure Bulletin, Vol. 36, No. 03, pp. 187-190, March 1993.		
	26	D.A. Patterson et al., A Case for Redundant Arrays of Inexpensive Disks (RAID), ACM 0-89791-268-3/88/0006/0109 1998.		
7	27	J.S. PLANK, A Tutorial on Reed-Solomon Coding for Fault-Tolerance in RAID-like Systems, pp. 1-19, February 19, 1999.		
	28	E.J. SCHWABE et al., Evaluating Approximately Balanced Parity-Declustered Data Layouts for Disk Arrays, ACM 0-89791-813-4/96/05, pp. 41-54, 1996.		
	29	E.J. SCHWABE et al., Flexible Usage of Parity Storage Space in Disk Arrays, ACM 0-89791-809-6/96/06, pp. 99-108, 1996.		
	30	L. Xu et al., X-Code: MDS Array Codes with Optimal Encoding, IEEE Trans. On Information Theory, Vol. 45, No. 1, pp. 272-276, January 1999.		

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Approved for use through 04/30/2003. OMB 0651-0031

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

Sheet	2	of	4
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Application Number	TBA
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Attorney Docket Number	ARC9-2003-0016-US1

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

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Sheet 1 of 4

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US- 5,134,619	07-28-1992	Henson et al.	
	2	US- 5,148,432	09-15-1992	Gordon et al.	
	3	US- 5,257,391	10-26-1993	DuLac et al.	
	4	US- 5,301,297	04-05-1994	Menon et al.	
	5	US- 5,398,253	03-14-1995	Gordon	
	6	US- 5,506,977	04-09-1996	Jones	
	7	US- 5,579,475	11-26-1996	Blaum et al.	
	8	US- 5,835,938	11-10-1998	Yamamoto et al.	
	9	US- 5,848,229	12-08-1998	Morita	
	10	US- 5,937,428	08-10-1999	Jantz	
	11	US- 6,070,249	05-30-2000	Lee	
	12	US- 6,138,125	10-24-2000	DeMoss	
	13	US- 6,154,853	11-28-2000	Kedem	
	14	US- 6,161,165	12-12-2000	Solomon et al.	
	15	US- 6,269,453 B1	07-31-2001	Krantz	
	16	US- 6,275,898 B1	08-14-2001	DeKoning	
	17	US- 6,279,138 B1	08-21-2001	Jadav et al.	
	18	US- 6,353,895 B1	03-05-2002	Stephenson	
	19	US- 6,530,004 B1	03-04-2003	King et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>

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